

Amendments to the Drawing Figures

Please replace the original drawings Figs. 25A, 25B, 26, 27A and 27B with the drawings Figs. 25A, 25B, 26, 27A and 27B in Enclosure A respectively.

The drawings Figs. 25A, 25B, 26, 27A and 27B in Enclosure A include corrections to the original drawings Figs. 25A, 25B, 26, 27A and 27B respectively.

Enclosure B includes red-marked sheets indicating in red the corrections made to the drawings Figs. 25A, 26, 27A and 27B.

REMARKS - General

1. Remarks concerning the amendments to the specification

In a previous amendment to the specification in Amendment C mailed on July 18, 2003, Applicant may have mistakenly omitted the “ ϵ ” math symbol on line 7 of the replacement paragraph [0236]. In the same previous amendment to the specification Applicant may also have mistakenly omitted the “ ϵ ” math symbol on line 7 of the replacement paragraph [0372].

However, Applicant is unsure of whether such omissions were actually entered into the specification or not.

Applicant contacted the Inventor's Assistance Center on Monday, December 5, 2005 between 10:00 and 10:12 a.m. EST, to request advice on which action Applicant should take under the circumstances described above in order to ensure that the “ ϵ ” math symbol is included on line 7 of paragraph [0236] on page 66 and that the “ ϵ ” math symbol is included on line 7 of paragraph [0372] on page 122 of the specification. Applicant was advised by the Inventor's Assistance Center to submit amendments to the specification in case the most recent version of the specification does not contain the “ ϵ ” math symbols while describing the circumstances in the Remarks section of the amendment. In following the advice of the Inventor's Assistance Center, Applicant respectfully requests that the current amendments to the specifications only be entered if the “ ϵ ” math symbol is missing from line 7 of paragraph [0236] on page 66 and is also missing from line 7 of paragraph [0372] on page 122 of the specification respectively. Otherwise if the “ ϵ ” math symbol is still present on line 7 of paragraph [0236] on page 66 and is also still present on line 7 of paragraph [0372] on page 122 of the specification respectively, then Applicant respectfully requests that the current amendments to the specification not be entered.

Applicant hereby declares that the current amendments to the specification, if entered, only correct obvious errors and do not add new matter.

2. Remarks concerning the amendments to the claims

By the above amendment, Applicant has corrected errors in the previous version of the claims.

Applicant contacted the Inventor's Assistance Center on Monday, December 5, 2005 between 10:00 and 10:12 a.m. EST, to ask whether Applicant should use the original claim numbering of 115-157 of the most recent version of the claims, or the numbering 1-42 of renumbered allowed claims mentioned in the Notice of Allowability when making amendments to the claims pursuant to 37 CFR 1.312 under the present circumstances. Applicant was advised by the Inventor's Assistance Center that Applicant should use the original claim numbering of 115-157 of the most recent version of the claims.

The amendment to claim 130 corrects a typo in the Examiner's Amendment to claim 130, page 4, of the Notice of Allowability. The amendment to claim 140 is a grammatical change to remove any ambiguity in the meaning of the claim. Thus the proposed amendments to claim 130 and claim 140 do not affect the substance of the claims and will require very little consideration by the Examiner.

Reasons for the current amendment to claim 155 are given below:

(A) Why the current amendment to claim 155 is needed:

The amendment to claim 155 corrects the previous version of claim 155 to be consistent with the teachings of an embodiment of the invention in paragraph [0174], pages 43-45 of the specification by including the following calculations,

“(5) removing from said periodic set any corresponding new periodic process that was included in said periodic set in any previous execution of A whenever a copy of an asynchronous process is to be included in said second set of asynchronous processes in the current execution of step A, and removing any copy of an asynchronous process from said second

asynchronous set that was included in said second asynchronous set in any previous execution
of step A whenever any corresponding new periodic process is to be included in said set of periodic processes in the current execution of step A,”
at the end of step (A); and by changing step (C) to,
“repeating step (B) if any changes to the second asynchronous set have occurred between the beginning and the end of the previous execution of B”;
and deleting step (D) of the previous version of claim 155.

The proposed amended claim 155 is supported by the teachings of an embodiment of the invention in the specification in which the corresponding calculations in lines 48-58 and lines 31-46 are performed at the end of the body of the loop starting at line 15, paragraph [0174], pages 43-44 of the specification. The proposed amended claim 155 is also supported by the teachings of an embodiment of the invention in the specification in which the body of the loop starting at line 11, paragraph [[0174], pages 43-44 of the specification, is repeated only if the value of the while loop condition variable “changes” is true at line 10, paragraph [0174], pages 43-44 of the specification. The amendment to claim 155 is needed for claim 155 to be properly supported by the teachings of an embodiment of the invention in the specification, and thus is needed for proper protection of the invention.

(B) Why the proposed amended claim 155 requires no additional search or examination:

The proposed amended claim 155 requires no additional search or examination by the Examiner because the proposed amended claim 155 is substantially similar to the previous version of claim 155, and is fully supported by the teachings of an embodiment of the invention in paragraph [0174], pages 43-45 of the specification as explained above. Furthermore, all the reasons for the patentability of the previous version of claim 155 which Applicant had previously submitted in the previous Supplemental Amendment I mailed March 8, 2005, including item 11.2.1, “Neither Dave nor Dave2 show any feature related to `execution of asynchronous processes which are not converted to new periodic processes and hence not mapped to time slots in the pre-run-time schedule’ ”; item 13.2.,

“Neither Dave nor Dave2 show the feature of permitted range of offset constraints for periodic processes”; and item 54 B, “Further Distinctions That Render Claim 155 Patentable Over Matsumoto (US5,448, 732)” in Supplemental Amendment I, are not affected by the current amendment to claim 155, and are equally valid when applied to the proposed amended claim 155.

(C) Why the proposed amended claim 155 is patentable:

The proposed amended claim 155 is patentable because, as also mentioned above, the proposed amended claim 155 is substantially similar to the previous version of claim 155, and all the reasons for the patentability of the previous version of claim 155 which Applicant had previously submitted in the previous Supplemental Amendment I mailed March 8, 2005, including item 11.2.1, “Neither Dave nor Dave2 show any feature related to ‘execution of asynchronous processes which are not converted to new periodic processes and hence not mapped to time slots in the pre-run-time schedule’ ”; item 13.2., “Neither Dave nor Dave2 show the feature of permitted range of offset constraints for periodic processes”; and item 54 B, “Further Distinctions That Render Claim 155 Patentable Over Matsumoto (US5,448, 732)” in Supplemental Amendment I, are not affected by the current amendment to claim 155, and are equally valid when applied to the proposed amended claim 155. In addition, as explained above, the proposed amended claim 155 is fully supported by the teachings of an embodiment of the invention in paragraph [0174], pages 43-45 of the specification.

(C) Why the amendment to claim 155 was not presented earlier:

Applicant is a *pro se* inventor, and the invention which claim 155 should properly protect is relatively complex. For these reasons unfortunately Applicant did not detect the need to correct claim 155 earlier.

3. Remarks concerning the amendments to the drawings

The Draftsperson's Patent Drawing Review comments are noted and are corrected with new drawing figures submitted herewith. The heights of the numbers, letters and reference characters of Figs. 25A, 25B, 26, 27A and 27B have all been increased to be at least .32 cm (1/8 inch) in height in accordance with 37 CFR 1.84(p)(3).

The replacement sheet drawings Figs. 25A, 26, 27A and 27B in Enclosure A include corrections to obvious errors in the original drawings Figs. 25A, 26, 27A and 27B respectively. Marked-up copies of Figs. 25A, 26, 27A and 27B including annotations in red indicating the changes made, are included in Enclosure B.

In the replacement sheet drawing Fig. 25A in Enclosure A previously omitted calculations " $D_{PREVIOUSi} = D_{NEWPi}$; $D_{NEWPi} = C_{Ai} + CONVERSION_ROOM(PREVIOUSi)$ " in a flowchart box have been added. The amendment to drawing Fig. 25A is supported by the teachings of an embodiment of the invention in the specification in which corresponding calculations are present in lines 13-14 of paragraph [0159], page 38 of the specification. Thus, the current amendment to Fig. 25A is fully supported by the teachings of an embodiment of the invention in paragraph [0159], pages 38-39 of the specification.

In the replacement sheet drawing Fig. 26 in Enclosure A previously omitted calculations "... IF $NEWP_j$ IS NOT IN Sp ", "... IF A_j IS IN Sa " have been added; " Sa " has also been replaced with " SA " in two locations; "PROCESSED" has been replaced by "SELECTED" in one location; and "FROM" has been replaced by "FOR" in another location. The amendment to drawing Fig. 26 is supported by the teachings of an embodiment of the invention in the specification in which corresponding calculations are present in lines 32-34; line 43, line 14, line 61, and line 14, respectively, of paragraph [0174], pages 43-44 of the specification. Thus, the current amendment to drawing Fig. 26 is fully supported by the teachings of an embodiment of the invention in paragraph [0174], pages 43-44 of the specification.

In the replacement sheet drawing Fig. 27A in Enclosure A, "Pj'S" has also been replaced with "Pi'S" in one location, and "Pi'S" has also been replaced with "P'S" in another location, and a label "YES" has been replaced with "NO" for an output path of one of the diamonds in the flowchart. The amendment to drawing Fig. 27A is supported by the teachings of an embodiment of the invention in the specification in which corresponding calculations are present in lines 14-20 of paragraph [0308], pages 93-94 of the specification. Thus, the current amendment to drawing Fig. 27A is fully supported by the teachings of an embodiment of the invention in paragraph [0308], pages 93-94 of the specification.

In the replacement sheet drawing Fig. 27B in Enclosure A, "Aj'S" has also been replaced with "Ai'S" in two locations, and a label "NO" has been added to an output path of the last diamond in the flowchart. The amendment to drawing Fig. 27B is supported by the teachings of an embodiment of the invention in the specification in which corresponding calculations are present in lines 32-42; lines 44-55, respectively, of paragraph [0308], pages 93-95 of the specification. Thus, the current amendment to drawing Fig. 27B is fully supported by the teachings of an embodiment of the invention in paragraph [0308], pages 93-95 of the specification.

Applicant hereby declares that the current amendments to drawings Fig. 25A, 25B, 26, 27A, 27B only correct obvious errors and do not add new matter.

Conclusion

Applicant submits that the amendments to the specification, claims and drawing figures comply with 37 CFR 1.312. Hence Applicant respectfully requests approval of their entry.

Very respectfully,

A handwritten signature in cursive script, appearing to read 'Jia Xu'.

Jia Xu, Applicant Pro Se

Enclosure A: Replacement Sheets of Drawings

Enclosure B: Annotated Sheets of Drawings

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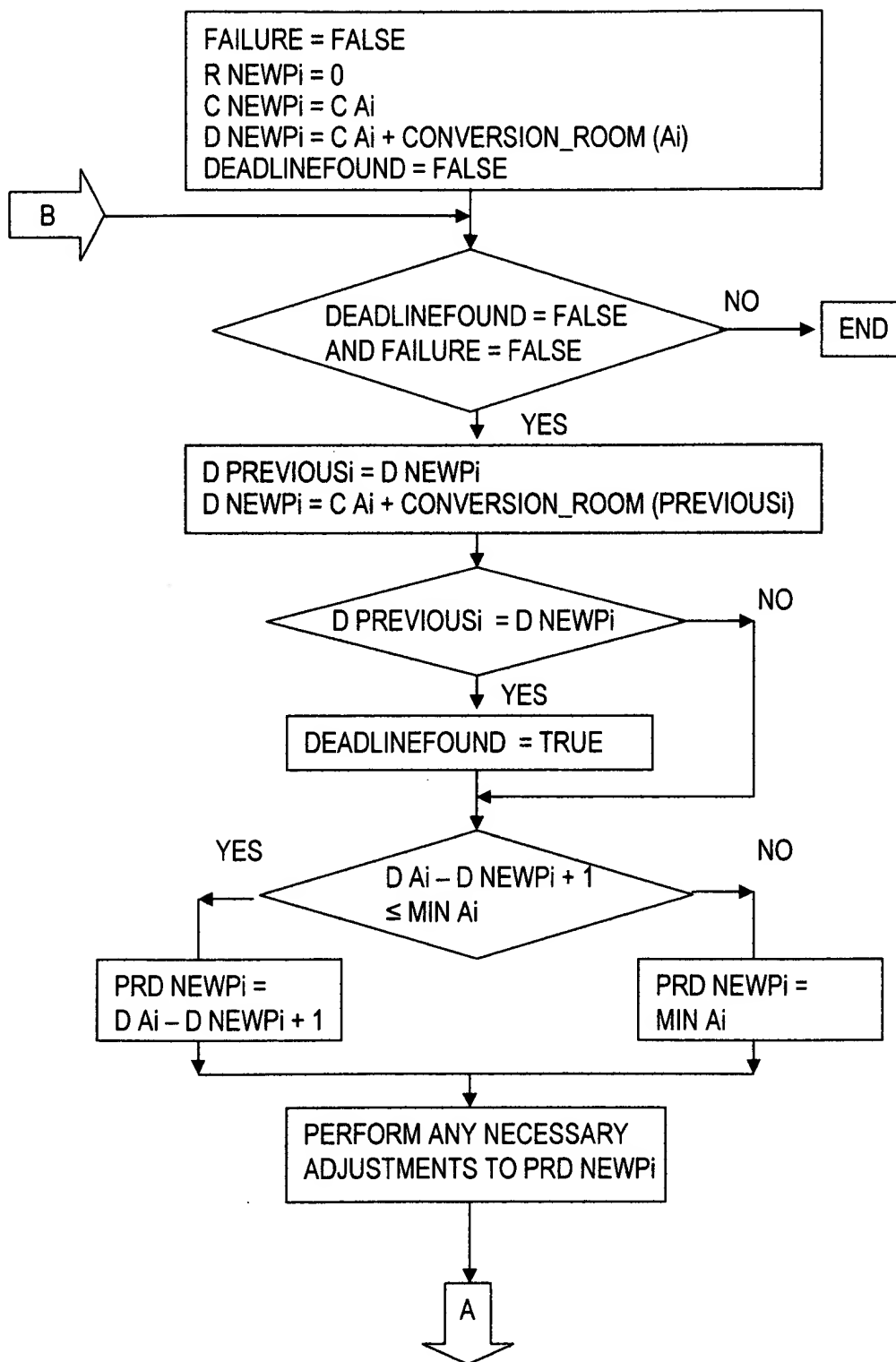
E-mail: jxu@cs.yorku.ca



Enclosure B: Annotated Sheets of Drawings Figs. 25A, 26, 27A, 27B

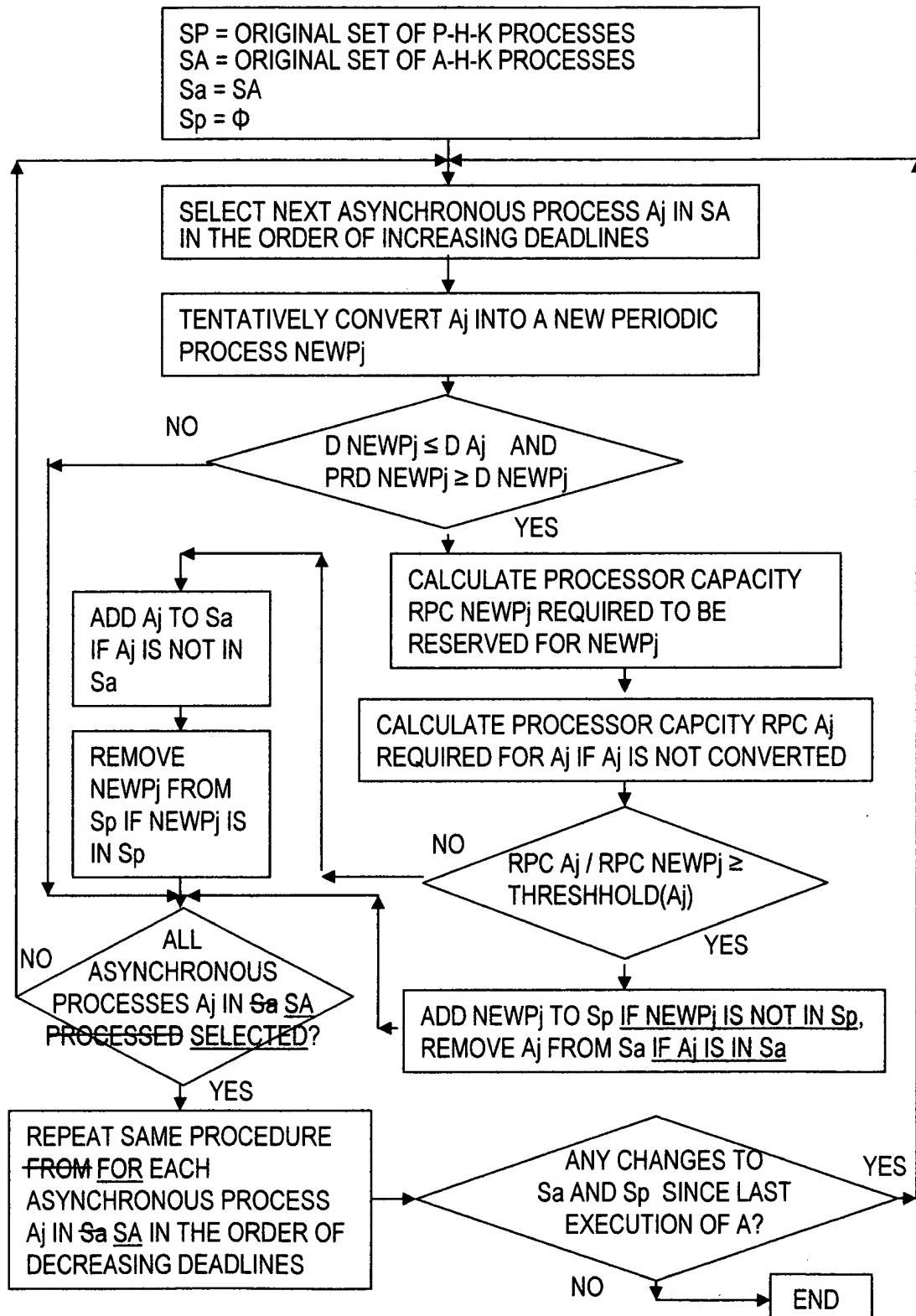
Annotated Sheet

FIG. 25 A



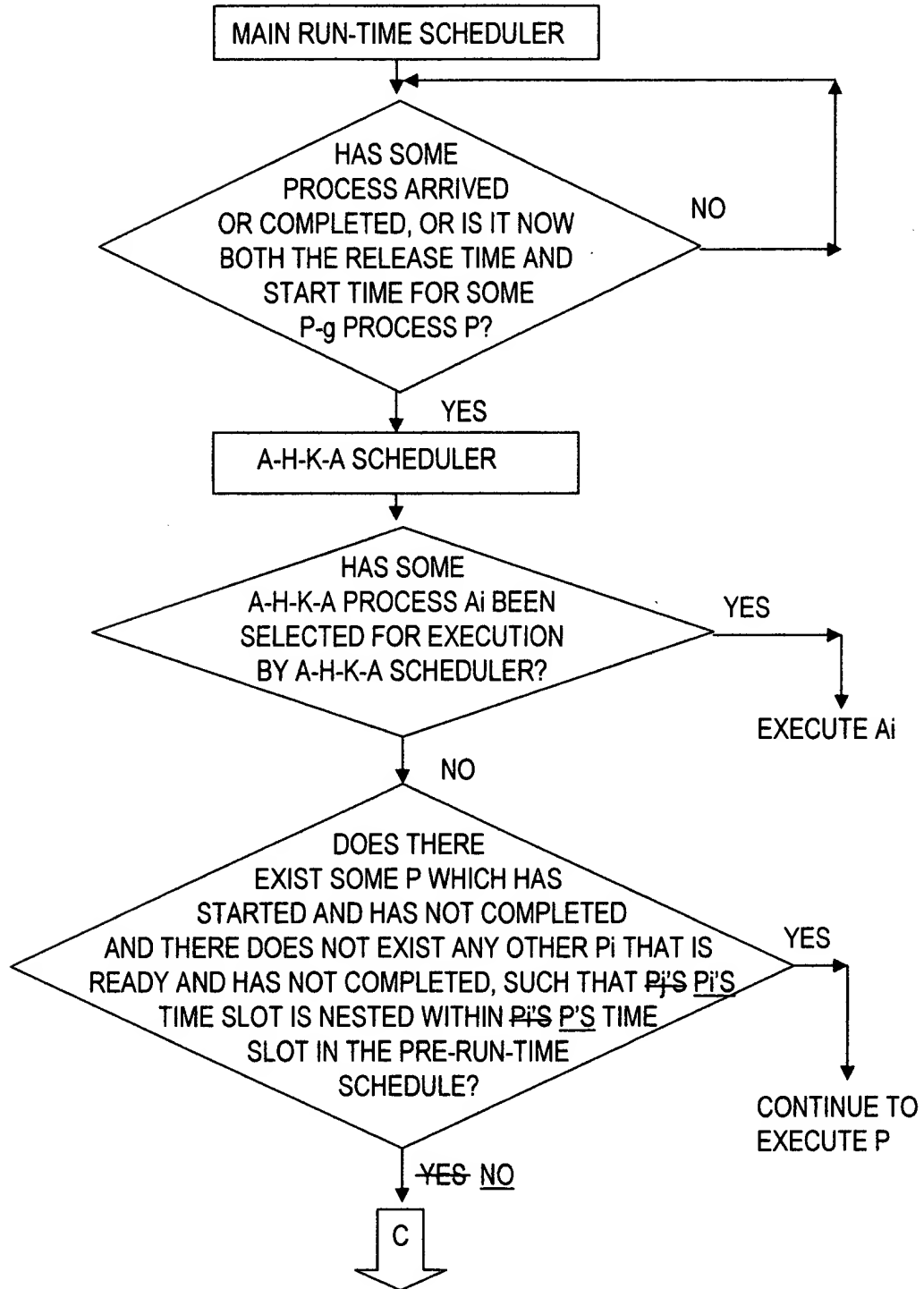
Annotated Sheet

FIG. 26



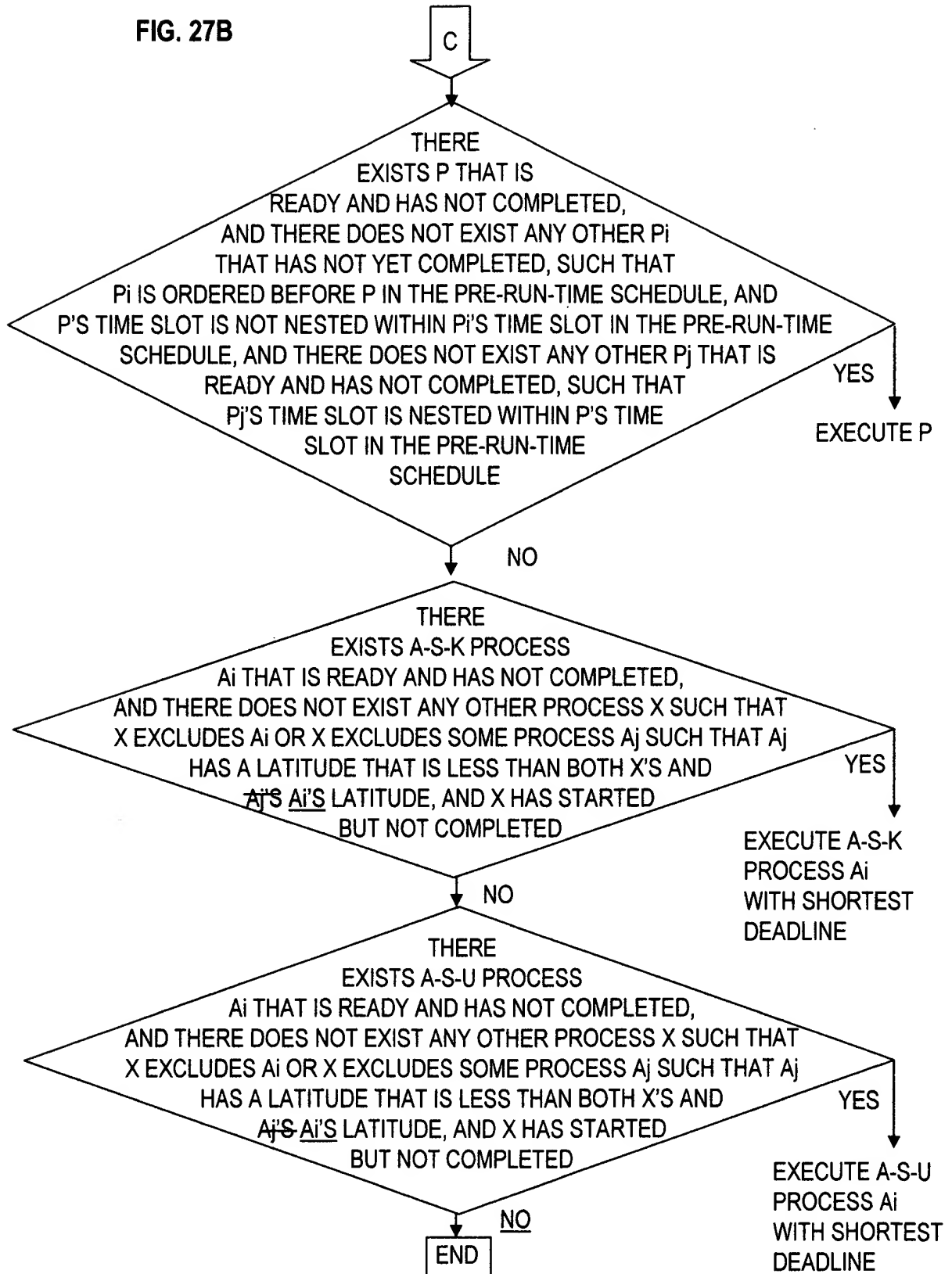
Annotated Sheet

FIG. 27A



Annotated Sheet

FIG. 27B





Enclosure A: Replacement Sheets of Drawings Figs. 25A, 25B, 26, 27A, 27B

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